Acrel

General

ADL300-EY three phase pre-paid meters with intro-control is used for calculating the three phase active energy respectively on the frequency of 50 Hz. The meter has functions of pre-paid, load controlling and RS485 communication etc. meet the related technical requirements of electronic power meter in the IEC62053-21, IEC62053-22 standards.







Model: ADL300-EY Size: 144*70*88mm Voltage: AC380V Current: 10(80)A Direct connect, internal relay 1(6)A CT connect, out relay Accuracy: class 1.0 Communication: RS485 Modbus-RTU Remote recharge

Model: ADL300-EYZ Size: 144*70*88mm Voltage: AC380V Current: 10(80)A Direct connect internal relay Accuracy: class 1.0 Communication: RS485 Modbus-RTU RF card or remote recharge Model: ADL300-EYRF Size: 144*70*88mm Voltage: AC380V Current: 10(80)A Direct connect out relay 1(6)A CT connect, out relay Accuracy: class 1.0 Communication: RS485 Modbus-RTU RF card

Features



Specification

Specification		ADL300-EY	ADL300-EYZ	ADL300-EYRF
Voltage	Reference voltage	AC 3×220/380V		
	Consumption		< 10VA	
	Accuracy	Class 0.5S		
Current	Reference current	3*1(6)A 3*10(80)A	3*10(80)A	3*1(6)A 3*10(80)A
	Accuracy class		Class 0.5S	
	Consumption		< 4VA	
Active pulse		Pulse width: 80ms±20ms Pulse constant: 1600imp/kWh		
Display		LCD		
Frequency		50Hz		
Option Function	Communication	RS485, Modbus-RTU compatible protocol		
	Multi tariff energies	4 tariff rates, 14 time interval by day		
Recharge method		Remote recharge	RF card or Remote recharge	RF card
Operation Temperature		-25 °C~+55 °C		
Storage Temperature		-40 °C ~+70 °C		
Altitude		≤ 2000m		
Relative humidity		≤95%RH, no condensation, without corrosive gas		

Dimension







connect via CT





Wiring

Wiring sample of current and voltage





Installations







Push off the buckle on the back side of meter

Install 35mm DIN rail on the slot behind meter





Buckle up so that DIN rail can be fixed





Successfully install the meter

Typical Connection





0. Installation Dimension

Dimension of necessary hardware including:

(1) ADL300-EY 3-phase Prepaid&Postpaid Energy Meter (Main Body&Terminal Block/PIN)



(1) Dimension of Main Body of ADL300-EY



(1) Dimension of Power Wiring Terminal Block of ADL300-EY [for CT Operated power wiring]



(1) Dimension of Comms.&DO Terminal Block of ADL300-EY [for RS485&DO Interface Wiring]



1. Wiring Illustration

Only 2 parts of wiring was necessary for wiring of ADL300-EY

(1) Voltage Signal Input Wiring of ADL300-EY: Use PIN Ua, Ub, Uc, Un on ADL300-EY for 3-phase voltage input respectively. Noted that you need to short PIN Ub and Un of ADL300-EY.

(2) Current Signal Input Wiring of ADL300-EY: Use PIN Ia*, Ia, Ic*, Ic for 3-phase current input respectively.

PIN Ia*, Ic* on ADL300-EY connected to red wire (also S1 side) of 2 CTs respectively for 3phase current input, PIN Ia, Ic on ADL300-EY connected to black wire (also S2 Side) of 2 CTs respectively for 3-phase current output)

Note #1: The installed direction (P1 to P2) of CTs must be according to the actual forward current/ energy direction.



PIN Overview of ADL300-EY [CT Operated Ver.]

1. Wiring Illustration

(1) Voltage Signal Input Wiring of ADL300-EY: Use PIN Ua, Ub, Ub, Un on ADL300-EY for 3-phase voltage input respectively.

(2) Current Signal Input Wiring of ADL300-EY: Use PIN Ia*, Ia, Ic*, Ic for 3-phase current input respectively - PIN Ia*, Ic* on ADL300-EY connected to red wire (also S1 side) of 2 CTs respectively for 3-phase current input, PIN Ia, Ic on ADL300-EY connected to black wire (also S2 Side) of 2 CTs respectively for 3-phase current output.

Note #1: The installed direction (P1 to P2) of CTs must be according to the actual forward current/ energy direction.





1. Wiring Illustration

(2) RS485 Communication Wiring between ADL300-EY and upstream devices [Take AWT100 Series IoT Gateway for exmaple]:

PIN 21 of AWT100 connected to PIN 21 of first ADL300-EY to PIN 21 of second ADL300-EY and to PIN 21 of last ADL300-EY.

PIN 22 of AWT100 connected to PIN 22 of first ADL300-EY to PIN 22 of second ADL300-EY and to PIN 22 of last ADL300-EY.



(2) RS485 Communication Wiring between ADL300-EY&AWT100 Series